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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/882,098	06/14/2001	Daniel C. Milius	258/065	7702

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EXAMINER

SALL, EL HADJI MALICK

ART UNIT PAPER NUMBER

2157

DATE MAILED: 09/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

**Application No.**

09/882,098

**Applicant(s)**

MILIUS ET AL.

**Examiner**

El Hadji M Sall

**Art Unit**

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 25-40 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**1. DETAILED ACTION**

This action is responsive to the application filed on June 14, 2001. Claims 1-40 are pending. Claims 1-40 represent dynamic Internet gateway service.

**2. Election/Restrictions**

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1 - 24, drawn to network resource allocating classified in class 709, subclass 226.

Group II, claim(s) 25 - 40, drawn to reliability and availability fault recovery by masking or reconfiguration or network classified in class 714, subclass 4.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as allocating resource transaction in a network environment. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Scott Richardson (Registration No. 43,436) on August 30, 2004 a provisional election was made with traverse to prosecute the invention of group I, claims 1 - 24

Applicant in replying to this Office action must make affirmation of this election. Claims 25 - 40 are withdrawn from further consideration by the examiner, 37 CFR

1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

**3. *Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniels-Barnes et al. (referred to hereafter as Daniels et al.) U.S. 6,665,705 in view of Bereiter U.S. 5,875,306.

Daniels teaches the invention substantially including method and apparatus for proxy replication (see abstract).

As to claim 1, Daniels teaches in a network comprising a plurality of computing devices, each computing device having a memory and being capable of accessing the Internet, and at least one of the computing devices being capable of connecting to the

Internet, each computing device capable of connecting to the Internet having a connection priority, a method for assigning an Internet gateway for the network, composing the steps of:

broadcasting to the network a request to become the gateway from one of the computing devices capable of connecting to the Internet, wherein the request to become the gateway includes the connection priority of the computing device broadcasting the request (see abstract, Daniels disclose...priorities assigned to the proxies...the secondary proxy is then allowed to multi-cast a message to clients indicating the secondary proxy's location...); and

assigning the computing device broadcasting the request as the gateway for the network (figure 9; column 2, lines 38-46, Daniels discloses a newly elected primary proxy ...).

Daniels fails to teach assigning the computing device broadcasting the request as the gateway for the network if the computing device broadcasting the request does not receive a response from the other computing devices within a predetermined time period.

However, Bereiter teaches reconfiguring computer resources in a distributed computer enterprise environment. Bereiter teaches if the computing device broadcasting the request does not receive a response from the other computing devices within a predetermined time period (column 12, lines 20-32, Bereiter discloses determining whether an endpoint machine can establish communication with a first gateway machine upon a predetermined occurrence...).

It would have been obvious to one of ordinary skilled in the art at the time of the invention to modify Daniels by assigning the computing device broadcasting the request as the gateway for the network if the computing device broadcasting the request does not receive a response from the other computing devices within a predetermined time period. One would be motivated to do so to avoid delays in transactions between computing devices in the network.

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As to claim 2, Daniels teaches the method of claim 1, wherein the predetermined time period is approximately 1 to 5 seconds (column 11, lines 21-23, Daniels discloses each proxy is allowed a "slice" of time to access the network cache and issue a heartbeat).

As to claim 3, Daniels teaches the method of claim 1, wherein each computing device is assigned a unique Internet protocol (IP) address, further comprising the steps of:

broadcasting to the network the IP address of the computing device assigned as the gateway for the network (column 8, lines 22-24, Daniels discloses the proxy generates a heartbeat by multicasting a message including the proxy's unique service name and location (i.e. IP address or URI)); and

storing in the memory of each computing device the IP address broadcasted to the network as the IP address of the gateway for the network (abstract, Daniels discloses... Further, the secondary proxy is then allowed to multi-cast a message to clients indicating the secondary proxy's location...)

As to claim 4, Daniels teaches the method of claim 1, wherein the computing device assigned as the gateway for the network is assigned a unique client IP address and assumes a predetermined gateway IP address (column 8, lines 22-24, Daniels discloses the proxy generates a heartbeat by multicasting a message including the proxy's unique service name and location (i.e. IP address or URI)).

As to claim 5, Daniels teaches the method of claim 1, wherein one of the computing devices is capable of operating as a proxy for the Internet gateway and is capable of being assigned a unique client IP address and a proxy IP address, and further wherein at least one of the other computing devices is capable of accessing the Internet by performing the steps of:

transmitting from the respective computing device to the proxy IP address of the proxy a message to be sent to the Internet (figure 1); and

transmitting from the proxy IP address of the proxy to the computing device assigned as the gateway for the network the message to be sent to the Internet (figure 1).

As to claim 6, Daniels teaches the method of claim 1, wherein at least one of the other computing devices capable of connecting to the Internet responds to the broadcasted request to become the gateway by performing the steps of:

determining whether the connection priority of the respective computing device is higher than the connection priority included in the broadcasted request to become the gateway (column 8-9, lines 67-7 to line 1, Daniels discloses...a determination is made as to whether the priority of the aproxy is greater than the priority of the primary of the primary proxy (step 702));

if the connection priority of the respective computing device is not higher than the connection priority included in the broadcasted request, sending no response to the broadcasted request (column 9, lines 17-19, Daniels discloses if the aproxy does not have a greater priority than the proxy, the proxy is not replaced and the process proceeds directly to step 706); and

if the connection priority of the respective computing device is higher than the connection priority included in the broadcasted request (column 9, lines 1-3, Daniels discloses if the priority of the aproxy is greater that the proxy, the aproxy becomes the proxy (step 704)), performing the steps of:

broadcasting to the network a request to become the gateway from the respective computing device within the predetermined time period, wherein the request to become the gateway includes the connection priority of the respective computing device (see abstract, Daniels discloses...priorities assigned to the proxies...the secondary proxy is then allowed to multi-cast a message to clients indicating the secondary proxy's location...); and

assigning the respective computing device as the gateway for the network (figure 9; column 2, lines 38-46, Daniels discloses a newly elected primary proxy...).

Daniels fails to teach assigning the respective computing device as the gateway for the network if the respective computing device receives no response from the other computing devices within the predetermined time period.

However, Bereiter teaches if the respective computing device receives no response from the other computing devices within the predetermined time period (column 12, lines 20-32, Bereiter discloses determining whether an endpoint machine can establish communication with a first gateway machine upon a predetermined occurrence...).

It would have been obvious to one of ordinary skilled in the art at the time of the invention to modify Daniels by assigning the respective computing device as the gateway for the network if the respective computing device receives no response from the other computing devices within the predetermined time period. One would be motivated to do so to avoid delays in transactions between computing devices in the network.

As to claim 16, Daniels teaches in a network comprising a plurality of computing devices, each computing device having a memory and being capable of accessing the Internet, and at least one of the computing devices being capable of connecting to the Internet, each computing device capable of connecting to the Internet having a connection priority, a method for assigning an Internet gateway for the network, composing the steps of:

in response to the request for the new gateway, broadcasting to the network a request to become the gateway from each computing device capable of connecting to the Internet, wherein each request to become the gateway includes the connection priority of the respective computing device broadcasting the request to become the gateway (see abstract, Daniels discloses...priorities assigned to the proxies...the secondary proxy is then allowed to multi-cast a message to clients indicating the secondary proxy's location...); and

in response to the request to become the gateway, performing by each computing device capable of connecting to the Internet the steps of:



determining whether the connection priority of the respective computing device is higher than the connection priority included in the broadcasted request to become the gateway (column 8-9, lines 67-7 to line 1, Daniels discloses...a determination is made as to whether the priority of the aproxy is greater than the priority of the primary of the primary proxy (step 702));

if the connection priority of the respective computing device is not higher than the connection priority included in the broadcasted request to become the gateway, sending no response to the broadcasted request to become the gateway (column 9, lines 17-19, Daniels discloses if the aproxy does not have a greater priority than the proxy, the proxy is not replaced and the process proceeds directly to step 706); and

if the connection priority of the respective computing device is higher than the connection priority included in the broadcasted request to become the gateway (column 9, lines 1-3, Daniels discloses if the priority of the aproxy is greater that the proxy, the aproxy becomes the proxy (step 704)), performing the steps of:

broadcasting to the network a request to become the gateway from the respective computing device within the predetermined time period, wherein the request to become the gateway includes the connection priority of the respective computing device (see abstract, Daniels discloses...priorities assigned to the proxies...the secondary proxy is then allowed to multi-cast a message to clients indicating the secondary proxy's location...); and

assigning the respective computing device as the new gateway for the network (figure 9; column 2, lines 38-46, Daniels discloses a newly elected primary proxy...).

Daniels fails to teach assigning the respective computing device as the gateway for the network if the respective computing device receives no response from the other computing devices within the predetermined time period.

However, Bereiter teaches if the respective computing device receives no response from the other computing devices within the predetermined time period (column 12, lines 20-32, Bereiter discloses determining whether an endpoint machine can establish communication with a first gateway machine upon a predetermined occurrence...).

It would have been obvious to one of ordinary skilled in the art at the time of the invention to modify Daniels by assigning the respective computing device as the gateway for the network if the respective computing device receives no response from the other computing devices within the predetermined time period. One would be motivated to do so to avoid delays in transactions between computing devices in the network.

Daniels fails to teach broadcasting to the network a request for a new gateway from one of the computing devices.

However, Bereiter teaches broadcasting to the network a request for a new gateway from one of the computing devices (column 6, lines 40-42, Bereiter discloses If the gateway is not known or if the gateway does not respond, the daemon issues a broadcasts requesting a gateway).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Daniels in view of Bereiter to provide broadcasting to the network a request for a new gateway from one of the computing devices. One would be motivated to do so to assign the endpoint to a new host gateway if the connection fails (see abstract).

Claims 7-15, and 17-24 do not teach or define any new limitations above claims 1-6 and 16, and therefore are rejected for similar reasons.

## **5. Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to El Hadji M Sall whose telephone number is 703-306-4153. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 703 308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

El Hadji Sall  
Patent Examiner  
Art Unit: 2157



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PRIMARY EXAMINER